

# United States Census 2020

## **2020 Research and Testing: 2018 Kiosk Pilot**

### **USPS-Census Bureau Partnership**

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## Executive Summary

This report presents the results of the self-response kiosk pilot conducted by the Census Bureau in partnership with the United States Postal Service (USPS) during the 2018 End-to-End Census Test. The kiosk pilot leveraged 30 post office locations in the Providence County, RI test site to house a kiosk and related signage to promote the Census Bureau's internet self-response option for the 2018 End-to-End Census Test questionnaire. The purpose of the kiosk pilot was to determine if placing kiosks in post offices would encourage and facilitate self-response, as well as to highlight the USPS-Census Bureau partnership in an operational environment.

The kiosk pilot was governed by an Interagency Agreement (IAA) between the USPS and the Census Bureau. Once in the field, the kiosks generated 252 interactions with respondents across 30 post offices that resulted in the completion of 111 census test questionnaires.

Many metrics were examined to determine the effect of the kiosks on the response rates at each post office. A correlation was found to exist between the amount of time required for a page on the internet self-response (ISR) questionnaire to load and the number of completed questionnaires. A significant drop-off in questionnaire completion was found to occur when the ISR questionnaire response time surpassed 10 seconds for a single page. Additionally, the overall rate of response may have been affected by the limited promotional opportunities available for the 2018 End-to-End Census Test, combined with the compressed timeline between final project approval and project execution.

Promotion opportunities for the kiosks were limited because of the lack of funding for the communications campaign associated with the 2018 End-to-End Census Test. However, the kiosks did receive media coverage through mentions in articles within the Wall Street Journal and on Federal Computer Weekly. The New York Regional Office and local area census office staff in Providence County supported and recommended the Kiosks as an option for self-response during their engagements with the public and elected officials during the 2018 End-to-End Census Test. A tip sheet with information about the kiosks was available on the 2018 End-to-End Census Test website, and signage promoting the kiosks was placed outside the Post Offices and accompanied the kiosk inside the post office.

The ability for the USPS and the Census Bureau to work together in a short timeframe to implement the kiosk pilot demonstrated the strength of the USPS-Census Bureau partnership and highlighted USPS' commitment to being a prospective solution provider for future Census Bureau operations.

## 1. Introduction

The purpose of the kiosk pilot was to explore the utilization of the USPS-Census Bureau partnership to increase internet self-response as part of the 2018 End-to-End Census Test. This was tested by placing internet-enabled kiosks and related signage in 30 post office locations within Providence County during the 2018 End-to-End Census Test between April 2, 2018 and July 31, 2018. The rationale behind the utilization of post offices to promote internet self-

response was that the USPS provides access to substantial foot traffic within highly functional retail establishments in the communities the USPS serves. In the design stage of the pilot, the Census Bureau asked the USPS to provide a turn-key solution to support the kiosk pilot, inclusive of necessary technology and materials to promote kiosk use and ensure its compliance with security and brand requirements. An Interagency Agreement was used as the vehicle to document the requirements and cost structure for the pilot. All kiosks and signage were provided by the USPS, and the USPS retained ownership of all materials throughout the pilot.

Coordination for the kiosk pilot was managed through the USPS-Census Bureau Enterprise Partnership Team, and tactical decisions were made through that cross-agency team and the associated partnership working groups.

### **1.1. Scope**

The scope of the kiosk pilot was to determine the viability of using kiosks in post offices to encourage self-response during the 2020 Census and to highlight the partnership between the USPS and Census Bureau in an operational environment. The expected outcome was to fully implement the kiosks within post offices and, subsequently, to obtain comparison data using the 2018 End-to-End Test site to determine how the kiosks affected response rates in a specific geography. This test also examined the conditions necessary for obtaining the maximum number of responses.

### **1.2. Intended Audience**

This report is intended for use by team members, Decennial Census Programs management, and Census Bureau executive leadership to develop plans for future testing and decision making for the 2020 Census and beyond. Both internal and external stakeholders may use this document as a reference and guide. It is assumed that the reader has a basic understanding of the decennial census.

### **1.3. Post Office Kiosk Installation**

The kiosks placed in post offices featured an internet-accessible tablet that enabled respondents to access the 2018 End-to-End Census Test questionnaire online. The USPS installed these kiosks and associated materials in 30 post offices in Providence County, RI. Examples of the kiosk and associated components can be found in Appendix B and Appendix C. A map of all post offices with kiosks can be found in Appendix D.

Each location was equipped with the following:

- One Self-Response Kiosk
  - The self-response kiosk was comprised of a Samsung Galaxy Tab E 9.6 inch 16GB tablet (tablet) that was physically accessible with a secure internet connection via Verizon Wireless SIM card and was secured in one of three types of stands with an attached instruction card called a “lugon.”

- The tablet was configured by the USPS based on requirements provided by the Census Bureau and utilized the Samsung Knox application (<https://www.samsungknox.com>) to ensure each tablet only linked to the 2018 End-to-End Census Test website.
- Each tablet was configured specifically to the nine-digit ZIP Code associated with the post office in which it was placed to ensure proper tracking of usage.
- One sign or banner
  - A sign or banner was attached to or placed behind the stand in which the tablet was secured to draw attention to the kiosk and promote the use of the kiosk to respond online to the 2018 End-to-End Census Test questionnaire.
- One sandwich board
  - A sandwich board was placed outside the front of each participating post office to promote the availability of the kiosk as a response option for the 2018 End-to-End Census Test.

Supporting technology was implemented at the Census Bureau to track usage of the kiosks and to accurately report on that usage to both internal and external stakeholders on a daily and weekly basis. The requirements provided to USPS for the configuration of the tablets included a custom ISR URL generated by the Census Bureau that linked a particular tablet to the 9-digit ZIP Code in which it was placed and allowed for reports to be created from logs associated with that custom URL. The results of these reports are discussed in Section 3, Pilot Results & Analysis.

## **2. Background**

The USPS-Census Bureau partnership was formally established under the Census Bureau's Geography Division in the fall of 2016 to achieve the goal of being a "one stop shop" for coordinating and documenting the various activities jointly conducted between the two organizations. An objective of the partnership is to "[a]chieve collaborative value by working together across all lines of shared business at the enterprise level." As part of the initial brainstorming sessions between USPS and Census Bureau leadership in the formative months of the partnership, the idea for the kiosks was put forth. The kiosks were seen as an opportunity to test the stated objective to achieve collaborative value. The hypothesis was that from a Census Bureau perspective, the kiosks could further optimize self-response, and from a USPS perspective, the kiosks would be an investment in a platform for long-term, future use.

### **2.1. Goals and Expected Results**

The partnership coordination team proposed the following business goals and objectives for the kiosk pilot:

- To give the Census Bureau the opportunity to provide an additional method for internet self-response during the 2018 End-to-End Census Test.
- To ensure that all applicable information and materials supporting self-response were present in the 30 post office locations throughout the 2018 End-to-End Census Test.

- To enable USPS employees to be able to accurately answer questions about the intent and basic usage of the kiosk (not the census test questionnaire itself).

Additionally, the Census Bureau planned to work with the USPS to track and report the following key performance indicators of this pilot:

- Number of inquiries from post office customers while completing their 2018 End-to-End Census Test online questionnaire.
- Existence and/or frequency of reported kiosk IT or internet issues and incidents.
- Impacts on the experience of the post office locations, USPS employees, or USPS customers.
- Physical and IT access challenges.

In addition to these business goals and objectives, the overall goal for the pilot was to test whether this project could be implemented in the field using the structure set in place by the Postal Coordination Team.

### **3. Pilot Results and Analysis**

Though the business goals and objectives set forth at the beginning of the pilot did not set specific usage or ISR metrics to be reached, the partnership coordination team worked with stakeholders in the Decennial Census Management Division, Decennial Statistical Services Division, Geography Division, Administrative Customer Services Division, Census Questionnaire Assistance Office, Information Technology Directorate, the Providence Area Census Office, New York Regional Office, and the USPS to ensure that data was collected across a variety of means in order to produce meaningful analysis.

Over the course of four months, the kiosks located in the 30 post office locations collected quantitative data every time a customer started the questionnaire, which was triggered when the customer clicked “Start Questionnaire” and if they completed the questionnaire, which was triggered when the customer clicked “Submit.” The recorded data also included whether or not the user who started the questionnaire used their preassigned Census identification number (Census ID). If the customer did use their preassigned Census ID, their interaction was captured as having followed the ID path, and if they did not, their interaction was captured as having followed the non-ID path. Table 1 displays the quantitative results related to starting and completing a questionnaire from each post office location.

### 3.1. Total Responses by Kiosk Location

Table 1: Internet Self-Response (ISR) Results by Post Office Location

Post Office	ZIP Code	Non-ID ISR Started	Non-ID ISR Completed	ID ISR Started	ID ISR Completed	Total ISR Started	Total ISR Completed
<b>SMITHFIELD</b>	02917-9998	11	9	5	5	16	14
<b>PROVIDENCE</b>	02904-2477	13	5	4	4	17	9
<b>WOONSOCKET</b>	02895-9998	11	8	2	1	13	9
<b>WALNUT HILL</b>	02895-1537	9	5	3	3	12	8
<b>GARDEN CITY</b>	02920-9998	12	6	1	1	13	7
<b>EAST PROVIDENCE FINANCE UNIT</b>	02914-4506	5	2	5	4	10	6
<b>ELMWOOD</b>	02907-9998	9	3	2	2	11	5
<b>WEYBOSSET HILL</b>	02903-4102	9	5	0	0	9	5
<b>CHEPACHET</b>	02814-1960	8	3	1	1	9	4
<b>LINCOLN</b>	02865-9998	12	3	1	1	13	4
<b>OLNEYVILLE</b>	02909-9998	3	3	2	1	5	4
<b>RIVERSIDE</b>	02915-9991	7	1	4	3	11	4
<b>RUMFORD</b>	02916-9998	17	2	6	2	23	4

Post Office	ZIP Code	Non-ID ISR Started	Non-ID ISR Completed	ID ISR Started	ID ISR Completed	Total ISR Started	Total ISR Completed
<b>DARLINGTON</b>	02838-9998	4	3	1	0	5	3
<b>GREENVILLE</b>	02828-9998	4	3	0	0	4	3
<b>MANVILLE</b>	02861-3810	18	2	4	1	22	3
<b>NORTH SCITUATE</b>	02857-1961	2	1	2	2	4	3
<b>NORTH STATION</b>	02908-3700	7	3	0	0	7	3
<b>WASHINGTON PARK</b>	02905-2999	4	1	2	2	6	3
<b>CRANSTON</b>	02910-3499	5	2	0	0	5	2
<b>HOPE</b>	02831-9998	6	1	2	1	8	2
<b>JOHNSTON</b>	02919-9998	4	1	1	1	5	2
<b>PAWTUCKET</b>	02860-9998	4	1	2	1	6	2
<b>CUMBERLAND</b>	02864-9998	1	0	1	1	2	1
<b>PASCOAG</b>	02859-3132	2	1	0	0	2	1
<b>ANNEX FINANCE</b>	02903-1701	0	0	0	0	0	0
<b>CENTREDALE</b>	02911-9998	1	0	2	0	3	0
<b>EAST SIDE</b>	02906-1590	10	0	1	0	11	0

Post Office	ZIP Code	Non-ID ISR Started	Non-ID ISR Completed	ID ISR Started	ID ISR Completed	Total ISR Started	Total ISR Completed
<b>FOSTER</b>	02825-1326	0	0	0	0	0	0
<b>SLATERSVILLE</b>	02876-9800	0	0	0	0	0	0
<b>TOTAL</b>		<b>198</b>	<b>74</b>	<b>54</b>	<b>37</b>	<b>252</b>	<b>111</b>

Overall, a total of 252 online questionnaires were started across the Post Office locations, and 111 of those started questionnaires were completed. This represented a 44 percent completion rate across all started and/or completed questionnaires. One hundred ninety-eight (78 percent) of the started questionnaires followed the non-ID path on the ISR questionnaire. Seventy-four of those started questionnaires were completed, representing a 37 percent completion rate. The remaining 54 (21.5 percent) questionnaires were started following the ID path on the ISR questionnaire. Thirty-seven (37) of those started questionnaires were completed, representing a 69 percent completion rate.

The data in Table 2 details how long users spent interacting with the actual questionnaires using the following calculation: (time completed the questionnaire) – (time started the questionnaire).

Table 2: Time Required for Users to Complete Questionnaire

Metric	Average Duration	Minimum Duration	Maximum Duration
<b>Time (min)</b>	11.13	4.35	33.25

Overall, the average time it took a respondent to complete a questionnaire using a kiosk was 11.13 minutes.

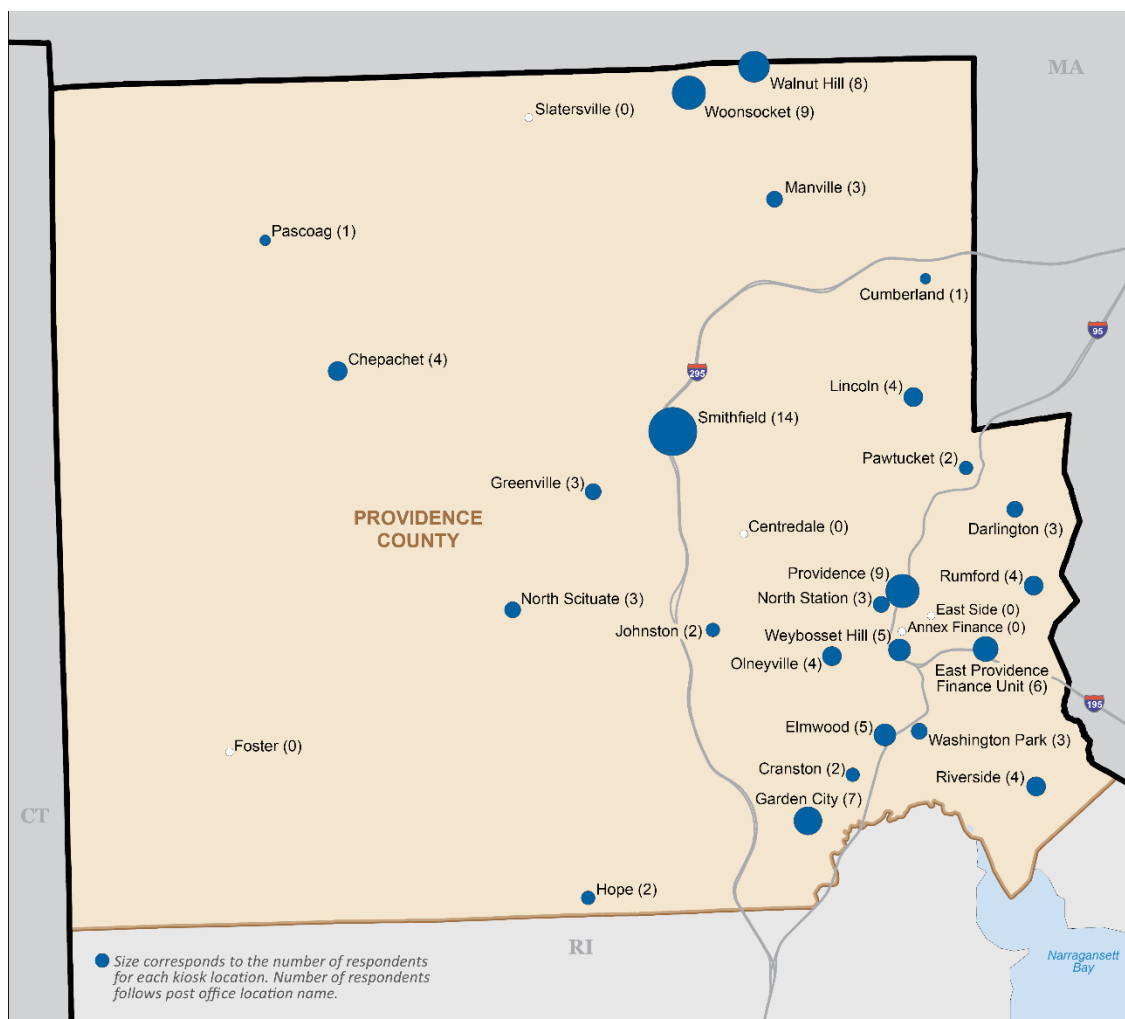
In addition to the data that was captured systematically, various Census Bureau employees, including members of the partnership coordination team, visited each of the post offices to gather additional data on technological and environmental factors that could affect usage of the kiosk. Census Bureau employees visited fifteen post office locations for the purpose of collecting additional metrics that could be compared against the questionnaire start and complete percentages, as well as viewing average customer interactions with the kiosks. The following questions were answered by the Census Bureau employees:

- What 2018 End-to-End Census Bureau Test marketing items, such as posters or sandwich boards, are present?

- Where are they located within the post office?
- How long did it take for the questionnaire to load once the user selected “start”?
- What type of Kiosk stand was installed?
  - Mobility stand
  - Armodilo™ stand
  - Round Velcro stand
- How many people were in the post office during the observation?

Figure 1 identifies the post offices in Providence County, and the size of each dot represents the number of completed questionnaires and the location. The template used to gather and record metrics can be found in Appendix E.

Figure 1: Post Offices in Providence Scaled by ISR Completions



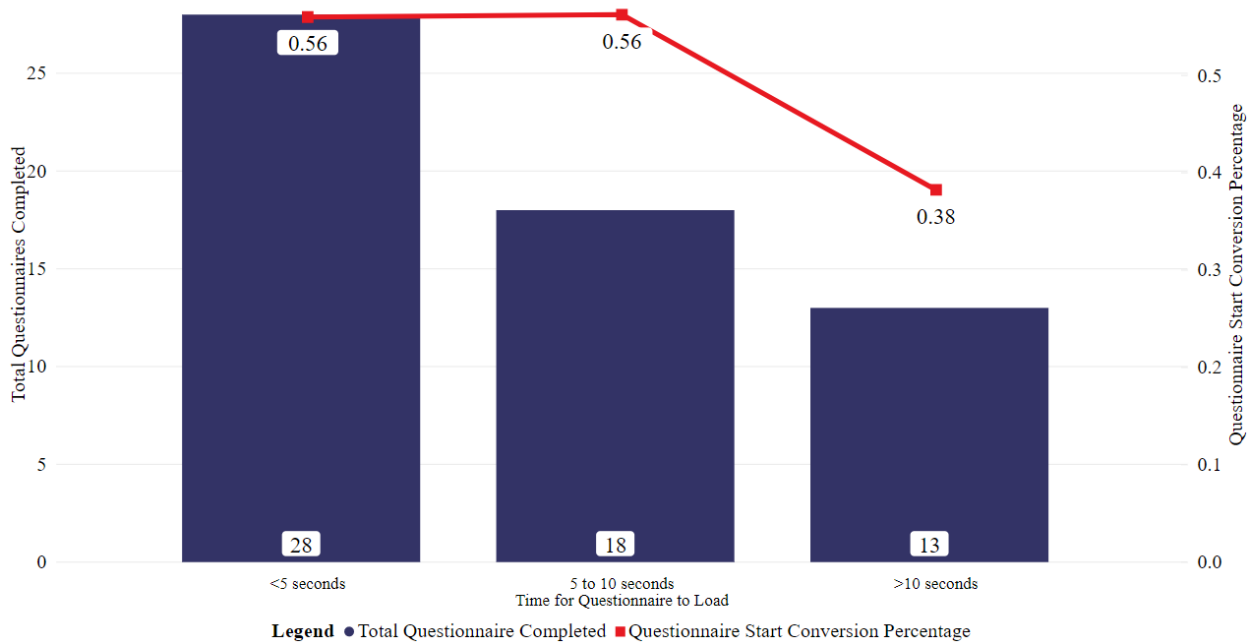
Each circle represents a post office and the size of the circle references the number of questionnaires completed at that location. The largest circle equates to 14 questionnaires and the smallest equates to 0 completed questionnaires.

The partnership coordination team analyzed the results from Table 1 and compared it with various data sources to derive trends. The main data sources used were:

1. Census tract-level data from the Census Bureau's Response Outreach Area Mapper (ROAM) application found at <https://www.census.gov/roam>.
2. Daily post office foot traffic data provided on a weekly basis by the USPS.
3. Data collected by Census Bureau employees on post office visits. The template used to gather and record the information can be found in Appendix E.

Of the factors examined, the most visible metric that influenced the questionnaire completion results for the visited post offices was how long the questionnaire took to load on the screen. Figure 2 shows that the longer it took for the questionnaire to load, the less likely a user was to complete it.

Figure 2: Questionnaire Load Time Effect on Response Rate



On the tablets where it took less than 5 seconds for the questionnaire to load, 28 total questionnaires were completed. This can be seen using the Y-axis on the left-hand side. There is a steep decline in questionnaire completions as the time for the questionnaire load exceeds 10 seconds. To control for how many users started questionnaires at the given post office locations, the Y-axis on the right measures the start to complete conversion percentage. As indicated by the red line, a user that starts a questionnaire which takes less than 5 seconds to load has a 56 percent chance of completing that questionnaire. This conversion rate holds constant for questionnaires that take between 5 and 10 seconds to load. Once a questionnaire takes more than 10 seconds to load, the conversion percentage drops significantly to just 38 percent. Since the kiosks were connected to the internet via a cellular

network SIM card, a focus on potential factors that could influence the cellular reception within a post office need to be considered.

In addition, the following quantitative measures were analyzed, and none had a significant effect on the outcome of questionnaire response rates:

- Low Response Score
- Percent of Population by Income level
- Percent of Population by Age
- Percent of Population Below Poverty Level
- Percent of Population by Race
- Percent of Population by Primary Language
- Total Occupancy Units
- Median Household Income
- Mail Return Rate

In addition to the data gathered during the observations performed at the post offices, it was observed that post office customers were more interested in interacting with the kiosk if a person they identified as “official” was standing at or near it. At two out of 15 post offices observed, a customer approached the kiosk and attempted to complete their online questionnaire while a Census Bureau employee was standing nearby and while it was apparent they were available to answer questions throughout the process. This level of interaction seemed useful for customers who were otherwise unsure about interacting with the kiosk.

Another conclusion gathered from key stakeholders during observation visits was that the ISR questionnaire displayed on the kiosks did not encourage customers to engage with the kiosks if they did not have their Census ID number with them. Census Bureau employees heard from both customers and USPS clerks that there was confusion about whether the kiosk could be used if the customer did not have their Census ID number sent by the Census Bureau. There was no quantitative data gathered to support this observation, other than the steep decline of Non-ID users between when they started and could have completed their questionnaire, but a future implementation of the kiosks should further review the possibility of making the Non-ID response option more apparent. Customers in a post office would most likely not have their Census ID number with them and may have been deterred from even starting the questionnaire when they first approached the kiosk.

### **3.2. Total Calls to CQA Operation**

The Census Questionnaire Assistance (CQA) Office was set up by the Census Bureau to answer potential respondents’ questions about the 2018 End-to-End Census Test and to accept responses over the phone. A phone number for CQA was provided on the ISR questionnaire as well as on the instruction card attached to the kiosks, and allowed potential respondents to speak to a customer service representative (CSR) and ask questions. The

CQA operation collected data on the types of questions received. For the kiosk pilot, categories were created to track when users encountered a kiosk at a post office and then called CQA for assistance.

A total of 16 calls were placed from potential respondents standing at a kiosk looking for aid. Table 3 details the knowledge articles that CSRs used to answer the caller's questions. Some calls to CQA resulted in the use of more than one knowledge article, leading to a total of more than 16 article references. In total, three calls resulted in successful enumeration by the CSR.

Table 3: Analysis of CQA Operation

Article Title	Number of Times Article was Referenced
How do I use the USPS self-response kiosk to complete my questionnaire?	4
I'm having trouble using the USPS self-response kiosk.	5
Is the USPS self-response kiosk safe to use?	1
USPS self-response kiosk is non-functional – job aid.	1
What is the USPS self-response kiosk?	7

### 3.3. Feedback from Census Employees

Several Census Bureau employees who are not members of the partnership coordination team also visited various post office locations during the 2018 End-to-End Census Test. While there, the employees documented feedback and submitted it to the partnership coordination team. The bullet points below contain some of the key findings from this feedback:

- It was noted that the Kiosks were not always located in the optimal space within post offices. This prevented customers from seeing the kiosk and was more likely to occur at the post offices where kiosks were tucked away in a dark part of the facility or packed tightly with other USPS products.
- There were mixed reviews about the marketing materials/signage included as part of the kiosk pilot. The location of the materials both inside and outside of the post offices were well received and the appearance was complimented, but some found that the signage was not placed in the most effective location. Census Bureau employees almost universally suggested that it would be beneficial to include larger signage and banners in and around the post office.

- One employee pointed out the possibility for confusion around the lack of materials regarding the purpose of the questionnaire and specific instructions about how to complete it. This feedback indicated that the marketing materials seemed to indicate that a customer could fill out the online questionnaire at the kiosk, but it did not provide additional information on what the 2018 End-to-End Census Test is and why it is important. The employee hypothesized that customers who are unaware of the census test may not understand the benefits of completing the questionnaire.
- It was pointed out that many customers seemed to enter a post office for a specific purpose and were intent on leaving as soon as possible. A suggestion was made to explore placing kiosks in other locations such as libraries or malls where people intend to stay for a longer period of time and have time to wait for the kiosk to be available.

### **3.4. Effect on Partnership with the USPS**

The Census Bureau and the USPS worked closely together to deliver the kiosk pilot. Throughout the IAA documentation, design, and implementation phases of the pilot, the USPS and Census Bureau project management teams held a weekly standing meeting to discuss progress and outline key achievements or action items that required cross-agency coordination. Additionally, the partnership working groups held regularly scheduled meetings to carry out tasks assigned to their areas in conjunction with the pilot.

The IAA governing the pilot was signed on March 12, 2018, and left approximately three weeks for implementation. The design for the pilot started ahead of that date, but the late signing of the IAA left a short runway for final development and implementation. This presented a challenge to both agencies that was overcome by utilizing the structure set in place by the partnership. The ability of representatives from both agencies to communicate seamlessly with each other was key to the successful implementation of the pilot.

Continued conversation about the pilot throughout the implementation phase was focused on the value the kiosks were providing within the context of the 2018 End-to-End Census Test. Reports about the pilot were generated at the Census Bureau and shared weekly with the USPS for distribution to their leadership team.

Externally, members of the public were informed about the Kiosks via a news release from the Census Bureau that was approved by both agencies. It can be found here:

<https://www.census.gov/newsroom/press-releases/2018/usps.html>.

Throughout the pilot, the Census Bureau had regular communication with USPS operations employees to ensure successful installation, maintenance, and operation of the kiosks.

## 4. Cost Analysis

The total cost of the kiosk pilot to the Census Bureau was \$100,000 paid via the IAA to the USPS. This covered the cost of all equipment and handling required for the kiosks, the time of the creative team who designed the signage, and the physical signage.

## 5. Lessons Learned

Lessons-learned sessions were conducted with key stakeholder groups toward the end of the pilot. These meetings with both Census Bureau and USPS teams provided opportunities for cross-collaboration and allowed discussion of issues and successes that could improve a future pilot or full-scale implementation of the kiosks. Sections 5.1 – 5.4 outline the key lessons learned by the stakeholders that could be useful in future implementations. Overall, the stakeholders indicated the biggest issue they faced was the compressed timeline for implementation and that success was found in the cross-agency collaboration that allowed for open communication and planning.

### 5.1. Technology Rollout & Launch

The USPS procured refurbished Samsung Galaxy Tab E 9.6 inch 16GB tablets used in the kiosks. Though effective, the manual process used for registration and configuration of the 30 tablets deployed for the kiosk pilot would not be directly scalable for use in the 2020 Census. To improve the efficiency and scalability of tablet configuration, a 2020 Census Bureau kiosk solution would need to include both mass configuration and remote management solutions. This would allow for quicker, less manual configuration and would allow updates to the tablets to be done remotely in a centralized fashion.

As detailed in Section 3, the performance of the tablets and their cellular connectivity directly affected users in their ability and/or interest to complete the online questionnaire. At the time of implementation, the settings on the tablet were configured to clear the web browser cache every time a new webpage loaded. This setting increased the questionnaire load time because more content had to be downloaded onto the webpage each time and led to an increase in data used per device that could increase the cost of operating each tablet. This web browser cache setting was manually changed in the middle of the kiosk pilot for a subset of post offices, and this change had a noticeable positive impact every time a new webpage loaded. Going forward, the web browser cache should not be set to clear when the user moves. Both the USPS and the Census Bureau indicated that insufficient time had been built into the kiosk pilot for live testing of the tablet configuration and website functionality prior to the start of operations.

Additionally, though compliance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C § 794 (d)) is a federal standard, USPS was able to receive relief from this requirement for the kiosk project from the USPS IT Security Architecture (ITSA) group. For a future implementation, there would be a 6-9 month process required to ensure Section 508 compliance for accessibility of the kiosk.

These statements summarize the key points gleaned from the Technology Rollout and Launch Lessons Learned session:

- A mass registration and configuration process needs to be developed for a full-scale implementation of the tablets within the kiosks.
- Performance of the tablets directly affected the use of the kiosks and further implementation needs to prioritize performance testing efforts.
- Additional time is required for a successful implementation of the kiosk pilot.

## **5.2. Physical Rollout & Launch**

Various tablet-support stands were tested in the kiosk pilot and USPS employees considered all models easy to assemble. Each of the stands were designed with specific signage in mind, but in a few instances the signage was deployed with mismatched pieces, which was quite noticeable and caused the kiosk to look out of place. The lugon instruction cards were installed incorrectly on many kiosks and started collapsing backward during the course of the pilot. It was suggested that there should be a set of unique instructions developed and delivered to the post office for installation of each unique kiosk stand type.

Many stands required a 6-foot extension cord as well as a 3-foot charging cable that comes with the tablet to operate. These cords made it necessary for the kiosks to be placed near electrical outlets to avoid the unsafe practice of “daisy chaining” multiple extension cords. Though the risk was mitigated, the options for where to place the kiosks in some post offices was limited.

The kiosks featured privacy screens that took between 3 and 4 hours to install and may have deterred potential users from seeing that the tablet was powered on. It was suggested that the Census Bureau should consider whether a privacy screen is required based on the kiosks’ physical location(s) within the post office.

Overall, the Armodilo™ stand and integrated signage had the best appearance in post offices according to USPS and Census Bureau employees. Feedback from the USPS indicated that the signage was received well by USPS employees and was relatively easy to assemble.

These statements summarize the key points gleaned from the Physical Rollout and Launch lessons learned session:

- A streamlined roll out of the kiosks, including instructions for set up matched to integrated tablet, stands, and signage, would ensure consistency of presentation across post offices.
- An alternative power source for the kiosks would expand the options for placement in the post office.
- The need for the privacy screen should be further assessed as it may interfere with capturing the eyes of potential respondents.

### 5.3. Marketing and Communications

The USPS worked with their creative agency partner to create the signage associated with the kiosks. However, because there was no formal Census Bureau communications campaign promoting the kiosks or the 2018 End-to-End Census Test, some customers did not know what to do when they saw the kiosk and associated signage. An overarching theme during the Lessons Learned session was that the kiosk without awareness is ineffective in increasing self-response.

USPS used the same creative agency from prior USPS projects. The normal process for this type of engagement at USPS starts with the writing of a creative brief. The brief is written in conjunction with the key stakeholders to ensure that goals and requirements match with both parties objectives. This was done by the USPS as proxy for the Census Bureau because of challenging timelines, but in the future, the Census Bureau would be included as a key stakeholder.

These statements summarize the key points gleaned from the marketing and communication lessons learned session:

- Signage without awareness is ineffective for increasing self-response.
- The Census Bureau should be involved in writing the creative brief with USPS to ensure all requirements are accounted for and to promote additional collaboration.

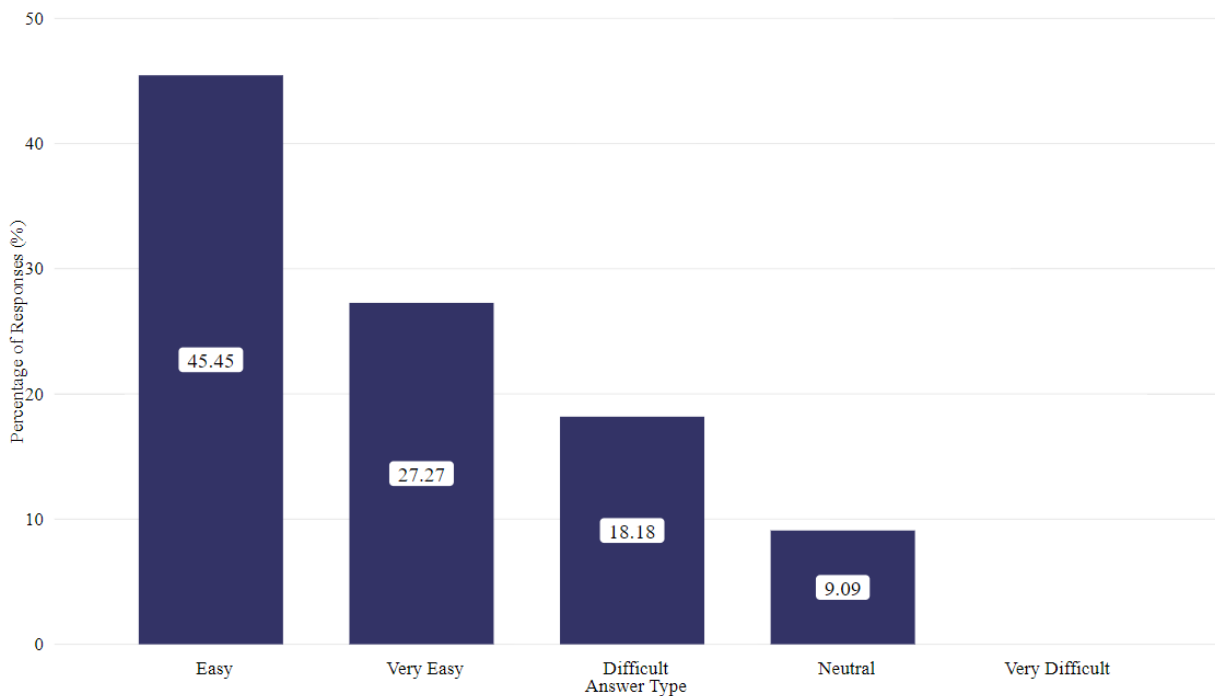
### 5.4. Feedback from USPS Employees

At the conclusion of the pilot, the USPS and Census Bureau gathered input from the USPS clerks and supervisors who were involved with the kiosk pilot in the 30 post office locations in Providence County. The Census Bureau drafted a survey that the USPS sent to its employees and asked them to respond on a voluntary basis. The USPS also hosted two conference calls to allow for verbal feedback from those representatives about the kiosk pilot and gave them a chance to provide recommendations for future implementations.

The results of the survey are summarized below.

The USPS employees were asked to rate on a scale from 1-5, 1 being the most difficult and 5 being the easiest, how challenging the kiosk was to set up. The average score of all surveyed was 3.89 indicating that the kiosk was easy to set up. There was a small subset of employees that considered the kiosks a 2, meaning it was difficult to set up. Figure 3 below outlines the results from the survey. The Y-axis shows the perceived difficulty broken down by the percentage of respondents.

Figure 3: USPS Employee Perception of Kiosk Set-up Difficulty



Over 80 percent of employees spent fewer than 30 minutes setting up the kiosk and related materials each week, while fewer than 20 percent spent between 30 and 60 minutes.

USPS clerks and supervisors that participated in the survey indicated that USPS customers rarely asked USPS employee's questions about the kiosk. When customers did ask questions or mention the kiosk, they overwhelmingly did not provide negative feedback. The rare negative feedback was about the tablet being slow and/or not working, as well as usability issues with the Census Test questionnaire. Overall, 75 percent of respondents believed they saw users interacting with the kiosk between 0 and 1 times each week. The other 25 percent saw users interact with the kiosk between 2 and 5 times each week.

When positive feedback was received, it related to the partnership between the USPS and the Census Bureau, as well as the availability of the Census Test questionnaire in the post office.

On the feedback calls, the USPS employees shared thoughts about their experience with the setup of the kiosks, how customers interacted with the kiosks and provided general comments and future recommendations for improvement. Some of the key findings from this feedback include:

- Kiosk Setup and Maintenance
  - The kiosks and signage were relatively easy to set up, and each office incorporated the work associated with them into their daily tasks, such as opening a retail lobby or bringing in mail from the outside box.

- Kiosk Usage
  - The kiosk signage blended in with the materials already in the USPS lobby. It did not stand out and may have been overlooked.
  - Almost all post offices had customers inquire about the kiosk at the beginning of the 2018 End-to-End Census Test. However, interest waned as time went on, likely since questionnaires were mailed to households two weeks prior to the kiosks being available in post offices and because of repeat customers at the post office.
  - One USPS employee shared that their customer base lived in apartments nearby and some of those customers asked why they couldn't have a kiosk in their apartment building lobby.
  - One USPS employee observed that the length of time it took the ISR questionnaire to load and the prevalence of the Census ID prompt on the login screen were major contributors to respondents not completing the online questionnaire.
- Recommendations
  - One USPS employee recommended sending out additional marketing materials, whether in the census test mailing or elsewhere, directing customers to the post office option for responding.

## 6. Conclusion

The Census Bureau and the USPS worked closely together to design, plan, and implement the kiosk pilot through effective use of the partnership structure. The kiosk pilot was implemented in a short time period and provided the Census Bureau with useful information about the potential for utilizing kiosks as part of future surveys.

While the kiosk solution was technically successful, only a small number of 2018 End-to-End Census Test respondents used the kiosk to submit their census questionnaire. The limited number of kiosk responses prevented the pilot from providing enough information to support the inclusion of this technology in the scope of the 2020 Census.

The data collected gave the Census Bureau insight into what characteristics made kiosks more or less successful from a usage perspective. These areas include tablet and ISR website performance, as well as overall public awareness of the kiosk option within post offices given the absence of a dedicated media campaign for the 2018 End-to-End Census Test.

## 7. References

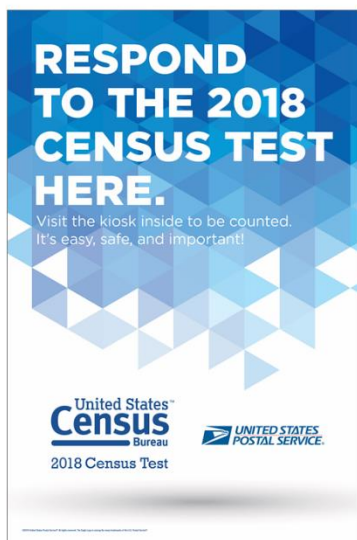
### Appendix A: Image of a Kiosk in a Post Office



## Appendix B: Kiosk Components

### SANDWICH BOARD

2



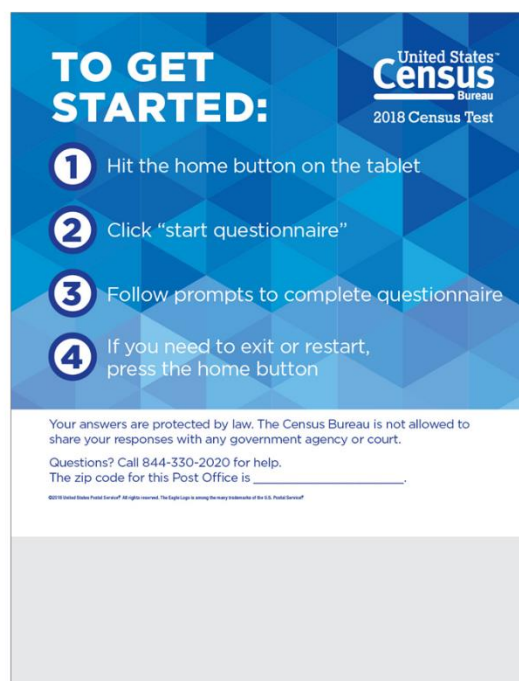
Sits right outside Post Office™ front doors and invites customers inside where they can complete the Census test.



### INSTRUCTION LUGON – "7 X 9"

Provides simple instructions on how to use the tablet to complete the Census.

5



### FREESTANDING BANNER— 14" x 70"

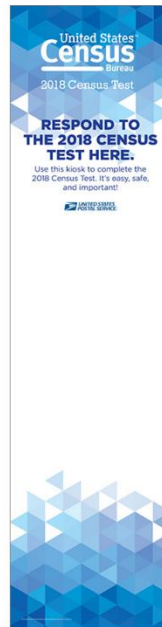
Stands behind the mobility kiosk and directs retail customers to the proper area for completing the Census test (gatorboard sign).



3

### ARMODILO BANNER— 14" x 70"

Attaches to the Armodilo floor stand and directs retail customers to the proper area for completing the Census test (gatorboard sign).



4

## ARMODILO STAND

7



## MOBILITY STAND

8



## Appendix C: Participating Post Offices in Providence, RI

